

WHAT IS CLAIMED IS:

1. A method for detecting an occlusion, the method comprising:
receiving a signal corresponding to a first force needed to deliver a first material;
indicating that an occlusion exists if the first force is greater than a baseline value plus a delta value;
setting, if the first force is less than or equal to the baseline value plus the delta value, and if a turbulence factor is less than a threshold value, the baseline value equal to a second force;
receiving a signal corresponding to a third force needed to deliver a second material; and
indicating that an occlusion exists if the third force is greater than the baseline value plus the delta value.
2. The method of claim 1, wherein indicating that an occlusion exists if the first force is greater than the baseline value plus the delta value further comprises assigning the baseline value a value equal to the force necessary to deliver the first material in an un-occluded state.
3. The method of claim 1, wherein indicating that an occlusion exists if the first force is greater than the baseline value plus the delta value further comprises assigning the delta value a value selected to create a desired level of sensitivity.
4. The method of claim 1, wherein setting the baseline value equal to the second force further comprises the second force being a low-pass filtered version of the first force.
5. The method of claim 1, wherein setting the baseline value equal to the second force further comprises the turbulence factor being a low-pass

filtered version of the absolute value of the difference between the first force and the second force.

6. The method of claim 1, further comprising providing the first material and the second material wherein the first material and the second material comprise at least one of insulin and medicine.

7. The method of claim 1, wherein receiving the signal corresponding to the first force further comprises receiving the signal corresponding to the first force from a device configured to infuse the first material into a subject's body.

8. The method of claim 7, wherein receiving the signal corresponding to the first force from the device further comprises receiving the signal corresponding to the first force from the device comprising an ambulatory infusion pump.

9. The method of claim 1, wherein receiving the signal corresponding to the third force further comprises receiving the signal corresponding to the third force from a device configured to infuse the second material into a subject's body.

10. The method of claim 9, wherein receiving the signal corresponding to the third force from the device further comprises receiving the signal corresponding to the third force from the device comprising an ambulatory infusion pump.

11. The method of claim 1, further comprising setting the delta value as a function of a number of delivered units of material delivered within a period of time.

12. A system for detecting an occlusion, the system comprising:
a memory storage for maintaining a plurality of data registers; and
a processing unit coupled to the memory storage, wherein the
processing unit is operative to

receive a signal corresponding to a first force needed to deliver
a first material;

indicate that an occlusion exists if the first force is greater than a
baseline value plus a delta value;

set, if the first force is less than or equal to the baseline value
plus the delta value, and if a turbulence factor is less than a threshold
value, the baseline value equal to a second force;

receive a signal corresponding to a third force needed to deliver
a second material; and

indicate that an occlusion exists if the third force is greater than
the baseline value plus the delta value.

13. The system of claim 12, wherein the processing unit being
operative to indicate that an occlusion exists if the first force is greater than
the baseline value plus the delta value further comprises the processing unit
being operative to assign the baseline value a value equal to the force
necessary to deliver the first material in an un-occluded state.

14. The system of claim 12, wherein the processing unit being
operative to indicate that an occlusion exists if the first force is greater than
the baseline value plus the delta value further comprises the processing unit
being operative to assign the delta value a value selected to create a desired
level of sensitivity.

15. The system of claim 12, wherein the processing unit being
operative to set the baseline value equal to the second force further
comprises the second force being a low-pass filtered version of the first force.

16. The system of claim 12, wherein the processing unit being operative to set the baseline value equal to the second force further comprises the turbulence factor being a low-pass filtered version of the absolute value of the difference between the first force and the second force.

17. The system of claim 12, further comprises the processing unit being operative to provide the first material and the second material wherein the first material and the second material comprise at least one of insulin and medicine.

18. The system of claim 12, wherein the processing unit being operative to receive the signal corresponding to the first force further comprises the processing unit being operative to receive the signal corresponding to the first force from a device configured to infuse the first material into a subject's body.

19. The system of claim 18, wherein the processing unit being operative to receive the signal corresponding to the first force from the device further comprises the processing unit being operative to receive the signal corresponding to the first force from the device comprising an ambulatory infusion pump.

20. The system of claim 12, wherein the processing unit being operative to receive the signal corresponding to the third force further comprises the processing unit being operative to receive the signal corresponding to the third force from a device configured to infuse the second material into a subject's body.

21. The system of claim 20, wherein the processing unit being operative to receive the signal corresponding to the third force from the

device further comprises the processing unit being operative to receive the signal corresponding to the third force from the device comprising an ambulatory infusion pump.

22. The system of claim 12, wherein the processing unit is further configured to set the delta value as a function of a number of delivered units of material delivered within a period of time.

23. A computer-readable medium which stores a set of instructions which when executed performs a method for detecting an occlusion, the method executed by the set of instructions comprising:

receiving a signal corresponding to a first force needed to deliver a first material;

indicating that an occlusion exists if the first force is greater than a baseline value plus a delta value;

setting, if the first force is less than or equal to the baseline value plus the delta value, and if a turbulence factor is less than a threshold value, the baseline value equal to a second force;

receiving a signal corresponding to a third force needed to deliver a second material; and

indicating that an occlusion exists if the third force is greater than the baseline value plus the delta value.

24. The computer-readable medium of claim 23, wherein indicating that an occlusion exists if the first force is greater than the baseline value plus the delta value further comprises assigning the baseline value a value equal to the force necessary to deliver the first material in an un-occluded state.

25. The computer-readable medium of claim 23, wherein indicating that an occlusion exists if the first force is greater than the baseline value plus the delta value further comprises assigning the delta value a value selected to create a desired level of sensitivity.

26. The computer-readable medium of claim 23, wherein setting the baseline value equal to the second force further comprises the second force being a low-pass filtered version of the first force.

27. The computer-readable medium of claim 23, wherein setting the baseline value equal to the second force further comprises the turbulence

factor being a low-pass filtered version of the absolute value of the difference between the first force and the second force.

28. The computer-readable medium of claim 23, further comprising providing the first material and the second material wherein the first material and the second material comprise at least one of insulin and medicine.

29. The computer-readable medium of claim 23, wherein receiving the signal corresponding to the first force further comprises receiving the signal corresponding to the first force from a device configured to infuse the first material into a subject's body.

30. The computer-readable medium of claim 29, wherein receiving the signal corresponding to the first force from the device further comprises receiving the signal corresponding to the first force from the device comprising an ambulatory infusion pump.

31. The computer-readable medium of claim 23, wherein receiving the signal corresponding to the third force further comprises receiving the signal corresponding to the third force from a device configured to infuse the second material into a subject's body.

32. The computer-readable medium of claim 31, wherein receiving the signal corresponding to the third force from the device further comprises receiving the signal corresponding to the third force from the device comprising an ambulatory infusion pump.

33. The computer-readable medium of claim 23, further comprising setting the delta value as a function of a number of delivered units of material delivered within a period of time.